RUSSIAN MISSION
HEALTH CLINIC

Alaska Rural Primary Care Facility
Code and Condition Survey

Final
July 23, 2001

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I. Executive Summary

Overview:

The Russian Mission Clinic, built in 1982, is an original 960 SF clinic expanded in 1987 with a 320 SF trauma room addition to a total current size of 1280 SF. The clinic is of somewhat typical design for the time it was constructed. It has very small waiting area, three exam rooms, one triage, no office space other than exam rooms, one toilet, no bath, no janitor, storage, trauma room and mechanical room. The simple wood frame construction on a 8 x 8 post and pad system over a sandy silty dirt pad is similar to many clinics constructed in the YKHC region over the last 20-30 years. It has been modified due to heating problems with all exposed internal piping, and is in poor condition and small for the current size of the village, 296 residents.

Renovation/Upgrade and Addition:

The Clinic will require a 720 SF addition to accommodate the current need and Alaska Rural Primary Care Facility space guidelines. This addition, though possible on the existing site, would require considerable reconfiguration of the site and substantial erosion and additional new fill and pad work. There would also need to be major renovation and upgrade of the existing clinic. As can be seen from the documentation enclosed, the existing clinic will require major renovation to meet current code and standards as well. The cost of renovation and addition will far exceed the cost of a new clinic facility.

New Clinic:

The city has provided a new site, Lot 1 &2 of Netsvetov Subdivision and it is available immediately for a new clinic. The community has proposed that a new larger 2000 SF Denali Commission Medium Clinic can be constructed on the new site. We have included preliminary site plan for this site and a new 2000 SF clinic.

The proposed site has all existing utilities and immediately across the street from a newly constructed Post Office in the center of the community.

The community has completely supported this effort and have met extensively to assist in new site issues and to resolve any site considerations of the site presented.

II. General Information

A. The Purpose of the Report and Assessment Process:

ANTHC has entered into a cooperative agreement with the Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility assessment, planning, design and construction. Over 200 clinics will be inspected through the course of the program. The purpose of the Code and Condition survey report is to validate the data provided by the community in the Alaska Rural Primary Care Facility Needs Assessment and to provide each community with a uniform standard of evaluation for comparison with other communities to determine the relative need between the communities of Alaska for funding assistance for the construction of new or remodeled clinic facilities. The information provided in this report is one component of the scoring for the small clinic RFP that the Denali Commission sent to communities in priority Groups 1 and 2. The information gathered will be tabulated and analyzed according to a set of fixed criteria that should yield a priority list for funding. Additionally, the relative costs of new construction vs. remodel/addition will be evaluated to determine the most efficient means to bring the clinics up to a uniform standard of program and construction quality.

A team of professional Architects and Engineers traveled to the site and completed a detailed Field Report that was reviewed by all parties. Subsequently, the team completed a draft and then final report of the facility condition.

B. Assessment Team:

Tom Humphrey, Capital Projects Director, and Senka Paul, the administrator for Yukon Kuskokwim Health Corporation, organized the assessment team. The team for this site visit was Senka Paul, YKHC; Gerald L. (Jerry) Winchester, Architect, Winchester Alaska, Inc.; Bob Jernstrom, PE, Jernstrom Engineering, and Chet Crafts, ANTHC. Team members who assisted in preparation of report from information gathered included members of the field team above and Ben Oien PE, Structural Engineer; Eric Cowling, PE, Electrical Engineer; Carl Bassler PE, Civil Engineer; and Estimation Inc.

C. Report Format:

The format adopted is a modified “Deep Look” format, a facilities investigation and condition report used by both ANTHC and the Public Health Service, in maintaining an ongoing database of facilities throughout the country. Facilities are evaluated with respect to the requirements of the governing building codes and design guidelines. Building code compliance, general facility condition, and program needs have been evaluated. The written report includes a floor plan of the clinic, site plan as available, and new plans for renovation/upgrade or completely new clinics. Additional information was gathered during the field visit which includes a detailed Field Report and building condition checklist, sketches of building construction details, investigations of potential sites for new or replacement clinics, and proposed plans for village utility upgrades. This information is available for viewing at ANTHC’s Anchorage offices and will be held for reference.

D. The Site Investigation:

On June 12, 2001, the team flew to the site and made observations, took photos, and discussed the needs with on-site personnel for the facility. Approximately four hours was spent on site, with sufficient time to investigate foundations, structure, condition, mechanical and electrical systems, and to interview the staff to assess current and projected health care needs.

Interviews were conducted with the Sheila Minock, Health Aide, and other city residents. The city staff provided information on the existing building, site, and utilities. Additional review of existing data from YKHC files from physician's assistants, community health aides, travel clerks, dentists, specialty clinic providers, and medivac teams. These interviews provided clear understanding of the needs of the village, the clinic facility, and the users of the facility.

The Russian Mission community has reviewed the use of a Denali Commission Medium Health Clinic design adapted to the Russian Mission Sites. The site is secured across from the new post office and is dedicated to the new clinic facility.

II. Clinic Inspection Summary

A. Community Information:

Population: 296 (2000 Census)
2nd Class City, Unorganized Borough, Lower Yukon School District, Calista Corporation

Location:
Russian Mission is located on the west bank of the Yukon River in the Yukon-Kuskokwim Delta, 25 miles southeast of Marshall. It lies 70 air miles northeast of Bethel and 376 miles west of Anchorage. It lies at approximately 61d 47m N Latitude, 161d 19m W Longitude (Sec. 31, T020N, R066W, Seward Meridian). The community is located in the Bethel Recording District. The area encompasses 5 sq. miles of land and 1 sq. miles of water.

History:
The first Russian American Company fur trading post on the Yukon River was established here in 1837. The settlement was recorded as an Eskimo village called "Ikogmiut," meaning "people of the point," in 1842 by the Russian explorer Zagoskin. The first Russian Orthodox mission in Interior Alaska was established here in 1857 by the Russian-Aleut priest Jacob Netzuetov. The mission was called "Pokrovskaya Mission," and the village name was changed to Russian Mission in 1900. It was often confused with another village on the Kuskokwim called "Russian Mission." This village was renamed Chuathbaluk. The City was incorporated in 1970.

Culture:
Russian Mission is an Eskimo village. Subsistence is the focus of the culture. The sale or importation of alcohol is banned in the village.

Economy:
Employment opportunities in Russian Mission are limited to the school, local businesses and fishing. Twelve residents hold commercial fishing permits. Seasonal employment includes BLM firefighting and construction. Some income is earned from trapping, and subsistence activities are prevalent. Salmon, moose, black bear, porcupine, rabbit and waterfowl are utilized.

Facilities:
Water is derived from a deep well, is treated and distributed via buried pipes throughout the community. Most homes are also connected to the piped sewage system, including 25 new HUD homes. The City has requested funds to replace the plumbing and fixtures in 15 homes. Refuse is

disposed of by individuals at the landfill; a new site is needed.

Transportation:

Russian Mission's location on the Yukon River allows barge and small boat travel during the summer. Passengers, mail and light goods arrive primarily by air. A 2,700' gravel airstrip and seaplane landing area are owned and operated by the State. Scheduled daily flights are available. Snow machines enable inter-village transportation in the winter on the frozen riverbed.

Climate:

The climate exhibits a significant maritime influence. Temperatures range from -54 to 86. Annual precipitation is 16 inches, with snowfall of 60 inches. Heavy northern winds often limit the access.

B. General Clinic Information:

Physical Plant Information:

The existing Russian Mission Health Clinic completed in 1982 occupies 1280 sq. ft. (See attached Plan) It is one of the medium size clinics constructed during the last twenty years with a 320 sf non-code compliant addition existing in the YKHC program area. It has very small waiting room, extremely small toilet/bathroom, janitor/supply room, office/triage /exam room, two other full exam rooms, one office/trauma room, no specific office work area, a small supply storage area/pump room, and a mechanical room. It has a front entry with vestibule but does not allow stretcher access and does not meet code. The rear entry has a stair and ramp but does allow straighter access to the exam rooms. The trauma room has its own access from a 5 ft wide back door, and loading dock that does not meet code access and does not have a ramp. The clinic has served with water and sewer from existing water and wastewater systems for the village. There are no sinks in any of the exam rooms and the trauma room has a kitchen sink. There is a small sink in the non-ADA compliant toilet room. There is no bath or tub facility. There is a no separate janitor facility, the once janitor room is used as a triage/screening room.

Clinic program usage information:

Patient records indicate the clinic sees an average of 510 patients per month in 2000, and 260 in 1999 and 1998. This is an over a 96% increase in patient encounters in the last two years. There are 4 full or part time staff and 1 Itinerant or contract staff equivalent. The office space provided is non-existent and all the office functions, travel, files, and use by all health aides is accomplished in the exam rooms, hallways, and trauma room. Storage is very inadequate and the space is very inefficient for patient encounter and treatment.

C. Program Deficiency Narrative:

1. Space Requirements and Deficiencies:

Space Comparison Matrix - Current Russion Mission Actual SF to Denali Commission Medium Clinic

Alaska Rural Primary Care Facility

				Current Clinic			Medium clinic					
Purpose / Activity	**Designated Intinerant**			**Actual Net SF**			**ARPCF SF**			**Difference**		
	Size	**No.**	**Net Area (SF)**		**No.**	**Net Area (SF)**	**Size**	**No.**	**Net Area (SF)**	**Size**	**No.**	**Net Area (SF)**
Arctic Entries				39, 24	2	63	50	2	100			37
Waiting/Recep/Closet	150	1	150	88	1	88	150	1	150			62
Trauma/Telemed/Exam	200	1	200	294	1	294	200	1	200			-94
Office/Exam				88, 88, 87		263	150	1	150			-113
Admin./Records						0	110	1	110			110
Pharmacy/Lab				88	1	88	80	1	80			-8
Portable X-ray						0			0			0
Specialty Clinic/Health Ed/Conf						0	150	1	150			150
Patient Holding/ Sleeping Room						0	80	1	80			80
Storage	150	1	150	67	1	67	100	1	100			33
HC Toilet				44	1	44	60	2	120			76
Janitor's Closet				Triage- 40	1	40	30	1	30			-10
Subtotal Net Area			500			947			1270			323
Circulation & Net/Gross Conv. @ 45%						350			572			222
Subtotal (GSF)						1297			1842			545
Mechanical Space @ 8%				67	1	67			147			80
Total Heated Space			**500**			1364			1989			625
			0									
Morgue (unheated enclosed space)							30	1	30			30
Ext. Ramps, Stairs, Loading	HC Accessible			As Required			As Required			As Required		

a. Overall space deficiencies: The size of the facility is about 800 sf short of the ARPCF space requirements. Based on the YKHC efficiently designed facility to meet ARPCF requirements, the existing facility is 800 sf short of the needed space.

b. Specific room deficiencies: There is minimal vestibule, half the waiting space, minimal office and storage space, and no itinerant sleeping area. These deficiencies in combination with other small spaces leave the clinic very program deficient.

c. Other size issues: Mechanical room is very small, and there are no unheated or exterior storage areas.

2. Building Issues:

   a. Arctic Entries - The main entry in not accessible for ADA and is impossible to get a gurney into the room. It does not have a legal ramp and has storage of needed materials that cannot be stored inside the facility due to lack of room. The rear entry has a stair and non-compliant ramp. The rear entry to the trauma room is a deteriorated old loading dock with non-compliant stairs and no ramp.

   b. Waiting / Reception –The waiting area contains a couch for secondary patient use and two chairs and has equipment and other items stored in the room.

   c. Trauma/Telemed/Exam – There is a trauma room that is used as an office and storage. The room though sized adequately is full of other clinic equipment and storage items. There are three other rooms that are used for exam or some combination.

   d. Office / Exam – There are three exam rooms, which are crowded with equipment to the extent of impaired use. There was no capability of putting a patient in a gurney in the exam room or in any part of the facility other than the trauma room that does not have adequate access. All of the exam rooms are used for office function with desks, files, copier in the hallway, and exam table and minimal clinical item storage in the exam room. Privacy was very difficult with all hollow core doors.

   e. Administration / Records – There is no office room space used for all administrative, records, scheduling, telemedicine and other functions. They are spread in the exam rooms and the corridor. Note that electrical service is completely inadequate for the needs of the equipment.

   f. Pharmacy / Lab – There is not Pharmacy and medicines are stored in locked cabinets in the exam rooms.

   g. Specialty Clinic / Health Education / Conference - This function is completed in the exam rooms. There is no special area.

   h. Patient Holding / Sleeping Room – There is no sleeping room and only a rollaway bed for itinerant staff.

   i. Storage – Storage is inadequate and is an impediment to safety and the operation of this clinic. There is a lack of adequate storage for needed medical supplies, files, and equipment in this facility. There is minimal storage and mostly it is in the exam rooms. There is storage in rear entry, corridors, and mechanical rooms.

   j. HC Toilet Facilities – A single toilet room serves patients and clinic staff. The toilet room did not meet any of the ADA or UPC requirements. Entry door width was too narrow, and the toilet and sink lacked sufficient clearances and were of incorrect fixture type. There is no vacuum breaker on this sink as required by code.

   k. Janitors Room – There is no janitor's room.

   l. Mechanical/Boiler room – The room consists a small room for the boiler and systems. The access is via a door off of the main vestibule and there is no 1 hr. separation. The door is

made from plywood and is not rated. The boiler is in very poor shape and all of the heating system is in poor condition including all radiators and piping has been re-routed to exposed condition that is very unsanitary. There is not the required clearance to combustibles (entry door swing) or space as required by code.

m. Ancillary Rooms – There is one small triage room converted from the old janitors closet. It has no sink, only the pediatric scales, adult scales and a chair for initial patient interview. The room is only 4 ft wide. There is no sink in any exam room and therefore sanitation for patients was an issue. The space is used to maximum capacity including storage rooms, exam rooms, toilet rooms, office, waiting room, corridors, and vestibules.

3. Functional Design Issues

This facility is functionally inadequate for its intended use. The spaces do not meet the functional size requirement, access is non-compliant, sanitation and patient care are very poor due to materials, and condition of the facility. The ability to perform required medical functions within the facility is severely hampered by lack of storage, and not adequate sinks.

4. Health Program Issues

a. Vestibule and comfort:
The front door of the clinic is through a very small vestibule that is inadequate to defer the heat loss. There is no ADA access or gurney access. The waiting room is cold every time the door is opened and the cold air migrates into the clinic where patients are being attended.

b. Medical/Infectious Waste
This is being handled in a very basic method and is hampered by the small non-functional facility.

c. Infection Control
This is being completed with minimal long-term control due to lack of facilities. Floor materials are very worn out and replaced with multiple materials and sizes allowing for control problems. There is no rubber base material, and walls is mostly of plywood covered with wallpaper that is deteriorating and ceiling materials are old acoustic ceilings are also considerably lacking in cleaning ability. The exposed heat piping also provides very unsanitary conditions and impossible cleaning of the exam rooms. There is neither janitor sink for general cleaning nor sinks in the exam rooms for practioner use.

d. Insect and Rodent Control
None noted or investigated

e. Housekeeping
The difficulty in cleaning and housekeeping in such a congested facility is understandable and is being done at the best level currently possible.

5. Utilities

a. Water Supply
The city water is provided by the existing Water and Sewer system.

b. Sewage Disposal
Sewer system is provided by the city system to lagoon.

c. Electricity
Minimal 100-amp service to building is inadequate for current use.

d. Telephone
A single phone line services the clinic and is inadequate for current needs.

e. Fuel Oil
The fuel system is not adequate with some leaking having occurred around the existing above ground tank. There is not protection or containment for possible spilling.

D. Architectural / Structural Condition

1. Building Construction:

a. Floor Construction:
The floor is 2x10 joist over a 6 x 8 and 4 x 12 beams. The beams are supported with 8 x 8 posts with 3 x 12 pads under the posts. There is R-24 insulation in the floor with 3/8" plywood on the bottom of the joist. . There is considerable settlement and heaving which has caused doors to stick and floor to be uneven. There is approximately 5 inches of differential in the floor elevations. There is no crawlspace and therefore all piping has been relocated internal to the room space.

b. Exterior Wall Construction:
The walls are 2x8 construction at 24" oc. The sheathing is T-111 plywood siding painted and R-19 fiberglass batt insulation with vapor barrier ¼" paneling on the interior.

c. Roof Construction:
The roof is a full-span truss at 24" oc with plywood deck and metal roof. The insulation is approximately 12" or R-38 of batt insulation that is minimal in this climate.

d. Exterior Doors:
The exterior doors are residential insulated metal. They are in very poor shape and need replacement.

e. Exterior Windows:
Windows are of thermo-pane wood casement windows.

f. Exterior Decks, Stairs, and Ramps
There are minimal Arctic entries. There is no landing at the front entrance outside the main door, at the rear door the stairs and ramp are deteriorating, and the stairs rise and run do not meet code. The ramp is very steep and does not meet ADA and the handrails and landings do not meet code. The back loading dock for the trauma room does not meet code is deteriorated has no railings and the steps do not meet code.

2. Interior Construction:

a. Flooring:
The flooring is Sheet vinyl over plywood. It has been replaced in many areas and is seriously deteriorated in most areas. Duct tape has been used to patch the flooring that is worn out and covered with duct-tape in other areas. Entire replacement of sub-floor and finish is required to meet sanitary requirements.

b. Walls:
The walls are of 2x4 wood construction, with no sound insulation. The type of wall construction does not provide for patient privacy in any way. The finish is ¼" paneling covered with wallpaper and is in serious need of repair and replacement. There are many cracks in wall system due to settlement and shifting building.

c. Ceilings:
The ceilings are 12 x 12 acoustic tile over plywood and needing repair. The ceiling is not easily washed and presents a serious sanitation issue.

d. Interior doors:
The interior walls are of hollow core wood construction that provides minimal construction durability and they are all in need of repair. Additionally, these doors are not acceptable for patient privacy and sound control. There has been floor shifting and most of the doors do not close properly. They are not ADA accessible and the hardware does not meet ADA requirement.

e. Casework:
The upper casework is non-existent and the lower casework is of very poor construction. Plastic laminate tops that do not fit to walls and are damaged. The sanitary issues are very significant with the counters being of such poor construction. Need full replacement.

f. Furnishings:
The furnishings are very old and worn. There is an old couch in the waiting room and a variety of mismatched and old desks, chairs, and tables for other use. The exam tables are older as well.

g. Insulation:

Floor Insulation		R-19 to R-24
Wall Insulation	R-19	
Attic/Roof Insulation		R-38
Attic Ventilation		Gable Vents only.

h. Tightness of Construction:
The facility is of generally poor overall construction, with numerous leaks in construction system at doors, floor, roof, and sills.

i. Arctic Design:
The vestibules are minimal, orientation is OK, and siting of the clinic is next to hillside which is currently having major erosion problems. The relocation of the site is very warranted by the sandy silty nature of the soils.

3. Structural

    a. Foundations
    The foundation is 8 x 8 " post and pad over a silty, sandy dirt base and is in poor structural condition. Pads have settled, walls are racked, and the building has floor level deviation and has substantial cracking on the interior. There is no hold down strapping and the bracing is loose or missing. In general the foundation needs substantial upgrade work for a new useful lifetime or replacement.

    b. Walls and Roof:
    The walls and roof seem in relatively stable and adequate condition.

    c. Stairs. Landings, and Ramps
    These elements are in poor condition and need of replacement with signs of rotting and deterioration of structural elements.

E. Mechanical Condition

1. Heating System
    a. Fuel Storage and Distribution
    The clinics heating fuel oil storage tank is located adjacent to the building and not a minimum of 5 ft. as required by code. The 300-gallon storage tank does not have the proper venting, piping, or valving as required by code.

    b. Boiler
    A single residential grade, oil-fired boiler provides heating for the entire clinic. The boiler is in fair shape with missing controls and systems to meet the needs of the Health Clinic. The boiler has not been provided with a code required barometric damper in the stack. There is severe corrosion on the boiler stack and the vent assembly is in poor condition. There is one combustion air openings for the boiler which does not meet code. There are no additional heaters in the clinic to assist with heating.

    c. Heat Distribution System
    The piping has been routed in the clinic to avoid freezing and is exposed throughout the facility. Pipe insulation has been added which does not meet flame spread and smoke-developed ratings. The baseboard enclosures are all bent and broken. There are active piping leaks in the boiler room and clinic. The entire heating system is in need of replacement.

2. Ventilation System
    a. System
    There is no mechanical ventilation system. Ventilation is by operable windows. The windows do not open easily and as such do not provide effective ventilation. A ceiling mounted exhaust fan services the toilet room.

b. Outside Air
Some of the rooms with operable windows have missing operators so the windows cannot be opened.

3. Plumbing System
   a. Water System
   The water system plumbing is typical ½" and ¾" copper distribution piping to the clinic exam sinks and toilet fixtures.

   b. Sewer System
   City sanitary sewer provides the needs of the clinic. The kitchen sink drains to an outside drywell which is susceptible to freezing and not according to code.

   c. Fixtures
   The toilet room plumbing fixtures are not ADA approved or UPC code compliant for barrier free access.

   d. Water Heater
   The water heater is installed on a combustible floor and the unit is only rated for installation on a non-combustible floor. The water heater has not been provided with a code required barometric damper nor is the relief valve piped to the floor.

F. Electrical Condition

1. Electrical Service
   a. The electrical service is an overhead connection to the building with a meter/main combination panel located in the arctic entry of the building Crouse Hinds model G Nema 3R with a GE 65 144 611 meter.

   b. The service is a 100 Amp, 120/240V, 1 Ph, 3 wire.

2. Power Distribution
   a. The MDP is a 100 Amp Square D load center with 16 poles total of which 3 are spare.

   b. Type XLP individual power cables are routed unprotected from the main disconnect to the MDP.

   c. Non-metallic sheathed cable (Romex) is used for the branch circuit wiring.

3. Grounding System
   a. The building has no electrode grounding system.

4. Exterior Elements
   a. Exterior lighting incandescent wall lightings located at each man door. On-Off control is by manual wall switch only.

   b. No exterior power receptacles were noted.

c. Telephone service enters at a weatherproof protection test block on the exterior of the building.

5. Electrical devices and lighting
   a. Receptacles are grounding type. GFCI receptacles are provided within 6 ft of sinks of most sinks.

   b. The lighting is predominately 4 ft fluorescent T12 (2) lamp surface mounted wrap diffuser fixtures. Support rooms are incandescent type A19 lamped fixtures.

   c. Interior device plates are non-metallic ivory decorative plates.

6. Emergency System
   a. Building has self-luminous egress signage installed at the egress doors.

   b. No lighting is provided for emergency egress lighting.

7. Fire Alarm System
   a. A partial fire alarm system exists with one pull stations at 5'-4" AFF in the main corridor with a bell inside the building. System does not have horn/strobes or dial out capabilities.

   b. Battery power single power source type, single station smoke detectors are provided in the corridor and trauma room.

8. Telecommunication
   A voice system is provided by one telephone outlet in each room. No data system is presently installed.

G. Civil / Utility Condition

1. Location of building
   a. Patient Access
   Located in the relative center of the village for ease of access and seems to work fine. It is off of the main road to the airport which is an advantage.

   b. Service Access
   Road access is provided to front and rear entry. Neither stair and ramp access to rear, nor stairs to front entry, or loading dock at trauma room meet code access requirements. Ramps are excessively steep providing a slipping hazard in winter months.

   c. Other Considerations:
   The facility is located next to eroding hill and the sewage lagoon for the city is a few hundred yards to the south. The site will require some major filing and long-term shoring to prevent further erosion prior to any consideration of expansion.

2. Site Issues
   a. Drainage

Drainage from the site is poor and eroding the site that the building sets on. There is no significant pad on which the building is constructed, just the silty sandy dirt. Correction would include putting a new extended pad on the site prior to placing the post and pad system, shoring of the site, and new gravel to stabilize.

b. Snow
There does not appear to be a snow-drifting problem as the facility sits in the open.

3. Proximity of adjacent buildings
There is an adjacent house to the south and no other buildings in close proximity.

4. Utilities
   a. Water Supply
   The new city water supply provides adequate water for the facility.

   b. Sewage Disposal
   Sewage disposal is provided by City system and lagoon.

   c. Electricity
   Power from Village system via overhead wire. See Photos

   d. Telephone
   Overhead phone with only one phone connection, requiring fax and phone on same line.

H. Existing Facility Floor Plan (Site Plan if available):

We have attached drawings, as we have been able to identify, find, or create as part of this report. We have endeavored to provide all drawings for all the sites; however, in some cases exact existing site plans were not available. We have provided as indicated below:

A1.1 Existing Site Plan is attached if available

A1.2 Existing Facility Floor Plan is attached following.

A1.3 The Existing typical wall section is attached following as required by the report guidelines.

A2.1 The Addition to the Existing Facility as required to meet ARPCF Space Guidelines is attached following.

A3.1 The New Clinic Site plan is attached as proposed based on the community input.

A3.2 The New Denali Commission Clinic Floor Plan meeting the ARPCF Space Guidelines and proposed for this location is attached.

IV. Deficiency Evaluation

A. Deficiency Codes:

The deficiencies are categorized according to the following deficiency codes to allow the work to be prioritized for funding. The codes are as follows:

01 Program Deficiencies: Based on assessment of the facility's ability to support the stated services that are required to be provided at the site.

02 Fire and Life Safety Deficiencies: Based on the identified areas where the facility is not in compliance with provisions of the state building codes including, UBC, UFC, NFPA 101, UMPC, NEC. These are organized sequentially from Architectural

03 General Safety: Based on items that are not necessarily code items but are conditions that are considered un-safe by common design and building practices.

04 Environmental Compliance: Based on non-conformance with DEC regulations, hazardous materials and general sanitation.

05 Program Deficiencies: These are items that are required for delivery of the medical services model currently accepted for rural Alaska. This may include space requirements, functional needs, or other items to meet the delivery of quality medical services.

06 Unmet Supportable Space Needs: These are items that are required to meet the program delivery of the clinic and may not be show or delineated in the Alaska Primary Care Facility Space Guidelines.

07 Disability Access Deficiencies: Items not in compliance with the Americans with Disabilities Act.

08 Energy Conservation: These are items that are required for energy conservation and good energy management.

09 Plant Management: This category is for items that are required for easy and cost efficient management and maintenance of the Physical Plant.

10 Architectural M & R: Items affecting the architectural integrity of the facility, materials used, insulation, vapor retarder, attic and crawlspace ventilation, and general condition of interiors, and prevention of deterioration of structure and systems.

11 Structural M & R: Deficiencies and items affecting the integrity of the building. These include foundations, roof and wall structure, materials used, insulation, vapor retarders, attic and crawlspace ventilation, and general condition of interiors.

12 Mechanical M & R: Deficiencies in plumbing, heating, ventilation, air conditioning, or medical air systems.

13 **Electrical M & R:** Deficiencies with electrical generating, distribution, fire alarm, and communications systems.

14 **Utilities M & R:** Deficiencies with the utilities hook-ups, systems, and distribution.

15 **Grounds M & R:** Deficiencies with the civil site issues, drainage, access, etc.

16 **Painting M & R:** Deficiencies of painting, exterior, interior, trim and soffit.

17 **Roof M & R:** Deficiencies in roofing, and related systems including openings.

18 **Seismic Mitigation:** Deficiencies in seismic structural items or other related issues to seismic design including material improperly anchored to withstand seismic effect.

B. Photographs:

We have provided photographs attached which are noted to describe the various deficiencies described in the narratives and itemized in the summary below. The photos do not cover all deficiencies and are intended to provide a visual reference to persons viewing the report who are not familiar with the facility.

We have included additional photos as Appendix B for general reference. These are intended to add additional information to the specific deficiencies listed and to provide general background information.

C. Cost Estimate General Provisions

1. New Clinic Construction

- **Base Cost**

The Base Cost provided in Section VI of this report is the direct cost of construction, inclusive of general requirements (described below) and contingency for design unknowns (an estimating contingency) The base cost is exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The Project Factors and Area Cost Factor are multipliers of the base costs.

General Requirements are based on Anchorage costs without area adjustment. It is included in the Base Cost for New Clinics. These costs are indirect construction cost not specifically identifiable to individual line items. It consists of supervision, materials control, submittals and coordination, etc. The general requirements factor has not been adjusted for Indian Preference.

The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned.

- **Project Cost Factors**

  - Equipment Costs for new medical equipment has been added at 17% of the cost of new floor space.
  - Design Services is included at 10% to cover professional services including engineering and design.
  - Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
  - Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Estimated Total Project Cost of New Building**

  This is the total estimated cost of the project, including design services. The construction contract will be work subject to Davis Bacon wages, and assumes construction before year-end 2001. No inflation factor has been applied to this data.

2. Remodel, Renovations, and Additions

- **Base Cost**

  The Base Cost provided in the specific deficiency sheets is the direct cost of construction, exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Most of the deficiency items do not constitute projects of sufficient size to obtain efficiency of scale. The estimate assumes that the projects are completed either individually, or combined with other similar projects of like scope. The numbers include moderate allowances for difficulties encountered in working in occupied spaces and are based on remodeling rather than on new construction costs. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The General Requirements, Design Contingency and Area Cost Factors are multipliers of the base costs.

  The cost of Additions to clinics is estimated at a unit cost higher than New clinics due to the complexities of tying into the existing structures.

  Medical equipment is calculated at 17% of Base Cost for additions of new space only and is included as a line item in the estimate of base costs.

- **General Requirements Factor**

  General Requirements Factor is based on Anchorage costs without area adjustment. The factor is 1.20. It is multiplied by the Base Cost to get the project cost, exclusive of planning, architecture, engineering and administrative costs. This factor assumes projects include multiple deficiencies, which are then consolidated into single projects for economies of scale. The general requirements factor has not been adjusted for Indian Preference.

- **Area Cost Factor**

  The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Contingency for Design Unknowns (Estimating Contingency)**

  The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned. The factor used is 1.15.

- **Estimated Total Cost**

  This is the total estimated bid cost for work completed under Davis Bacon wage contracts, assuming construction before year-end 2001. This is the number that is entered in the front of the deficiency form. No inflation factor has been applied to this data.

- **Project Cost Factors**

  Similar to new clinics, the following project factors have been included in Section VI of this report.

  - Design Services is included at 10% to cover professional services including engineering and design.
  - Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
  - Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Estimated Total Project Cost of Remodel/Addition**

  This is the total estimated cost of the project including design services, the construction contract cost for work completed under Davis Bacon wages and assuming construction before year-end 2001. No inflation factor has been applied to this data.

V. Summary of Existing Clinic Deficiencies

The attached sheets document the deficiencies; provide recommendations on how to make repairs or accommodate the needs and provide a cost estimate to accomplish the proposed modifications. The summary addresses individual deficiencies. If all deficiencies were to be addressed in a single construction project there would be cost efficiencies that are not reflected in this tabulation.

These sheets are reports from the Access Data Base of individual Deficiencies that are compiled on individual forms and attached for reference.

Refer to Section VI. New Clinic Analysis for a comparison of remodel/addition to new construction.

VI. New Clinic Analysis

The analysis of whether a new clinic is required is based on the Denali Commission standard of evaluation that "New Construction is viable if the cost of Repair/Renovation and Addition exceeds 75% of the cost of New Construction".

We have therefore determined the cost of a New Clinic Construction to meet the Alaska Rural Primary Care Facility (ARPCF) Space Guidelines for a size of village. We have also determined the cost of Repair/Renovation & Addition to the existing Clinic to meet the same ARPCF Space Guidelines.

A. The cost of a New Denali Commission 2000 SF Large Clinic in Russian Mission is projected to be:

- Base Anchorage Construction Cost per s.f. $183
- Project Cost Factor: @ 45% $ 82
  - Medical Equipment 17%
  - Construction Contingency 10%
  - Design Fees 10%
  - Construction Administration 8%
- Multiplier for Village @ 1.29 $ 76

Adjusted Cost per SF $342

Projected Cost of a New Clinic: 2000 s.f. X $340 = $684,000

B. The cost of the Repair/Renovation and Additions for the existing Clinic are projected to be:

- Code & Condition Repairs/Renovations
  Cost from Deficiency Summary $402,273
- Remodel/Upgrade work (See Def. Code 18)
  75% of clinic 1280 SF = 960 SF @ $104/SF $ 99,731
- Additional Space Required by ARPCF (See Def. Code 01}
  - Base Anchorage Cost $183
    Additional Costs – @ 52% $115
    - Medical Equipment 17%
    - General Requirements 20%
    - Estimation Contingency 15%
  - `Multiplier for Village @1.29 $ 86

  Adjusted Cost per SF $384

  Total Addition Cost of 720 SF @ $384 $277,492
- Project Cost Facto @ 28% $218,259
  - Construction Contingency 10%
  - Construction Administration 8%
  - Design Fees 10%

Total cost of remodel/addition $997,755

C. Comparison of Existing Clinic Renovation/Addition versus New Clinic:

Ratio of Renovation/Addition versus New Clinic is:

$997,755 / $684,000 = 1.49 x cost of New Clinic

Based on Denali Commission standard of evaluation; the remodel/addition costs are more than 75% of the cost of new construction. A new clinic is recommended for this community.

* Note: Village factors may have been adjusted for recent 2001 cost adjustments and may have changed from previously published data distributed to the villages.

VII. Conclusions and Recommendations

The existing Russian Mission Clinic has served the community well for many years. Base on current ANTHC and YKHC delivery model for health care to rural Alaska, the facility is not adequate in size or in condition to meet these needs. The existing structure could be adapted for many other less clinical and medically stringent uses without extensive remodeling.

After careful review it is the recommendation of the consultant team that a new Denali Commission Medium 2000 SF Clinic be considered for Russian Mission. The addition of approximately 720 SF of clinic space required by the current ARPCF Program Space Guidelines and the major renovation and upgrading of the existing clinic space will cost 1.49 times the cost of a new clinic. This results in the recommendation of a new clinic for this village.

We reviewed the options with the local community leaders the consensus was that the New Medium Clinic would meet the current community needs and for years to come. In addition, they agreed and provided a new clinic site adjacent to the new Post Office. The new site is adjacent to all existing city utilities.

The community believes this is a good solution and will produce the best return for funds invested in a clinic that meets the needs of Russian Mission community and is aggressively moving to assist in any way to accomplish this goal.

Appendix A: Specific Deficiencies Listings

The attached sheets represent the individual deficiencies identified for this project and the corrective action required to meet current codes and standards of construction. The deficiencies are further summarized in Section V. Summary of Existing Clinic Deficiencies.

Appendix B: General Site Photographs

Aerial from the north

Exterior from Southwest

Exterior from Southeast

Exterior from Northeast

Foundation and water line

Exam/Trauma Room

Exam/Trauma Room

Exam Room 1

Exam Room 3

Exam Room 2

Main Hall from Front

Pump/Storage Room

Triage Room

Exam Room 3

Hallway from rear entry

Un-sanitary floor, wall and base.

Exam room floor, typical

Typical wiring and floor patching

Typical piping, Triage, Exam rooms

Proposed New Clinic Site from East

Road to the North

Road to the west (Post Office to Left)

Proposed Clinic Site from South

New Post Office across East-West Street

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